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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,751	11/26/2001	Hirohide Hashimoto	24835	5349

7590 03/24/2004

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EXAMINER

YAN, REN LUO

ART UNIT PAPER NUMBER

2854

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/991,751	HASHIMOTO ET AL.	
	Examiner	Art Unit	
	Ren L Yan	2854	

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondenc address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6, 7 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-13, 17-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-090893 in view of Schwopfinger(5,320,042). The '893 patent teaches the detailed structure of a screen printing apparatus as claimed including a first printing section having a screen printing drum 1 and a press drum 18 movable towards and away from the screen printing drum 1, and a downstream second printing section having a screen printing drum 31 and a press drum 29 movable towards and away from the screen printing drum 31. A paper feed section 16 for feeding print medium 19 to the first printing section, and a paper transfer mechanism 20 located between the two printing sections for transferring and feeding the print medium from the first printing section to the second printing section so as to enable printing on both surfaces of the print medium. A liquid application device 77 disposed by the second press drum 29 for applying liquid through a sheet-like member 38 to the outer circumferential surface of the second press drum 29 for the purpose of cleaning the drum surface. See Figs. 1 and 6 in '893 patent for details. However, the '893 patent does not teach the outer surface of the second press drum has micro-convexities and micro-concavities. The patent to Schwopfinger teaches a print medium guide roller having an outer surface with micro-convexities and micro-concavities in a form of spherical balls 6 to prevent the outer surface of the guide roller from being smeared by the

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freshly printed ink on the print medium. See the entire Schwopfinger patent for example. In view of the teaching of Schwopfinger, it would have been obvious to one of ordinary skill in the art to provide the second press drum surface of the '893 patent with the micro-convexities and micro-concavities as taught by Schwopfinger in order to keep the press drum surface from being smeared by freshly printed ink on the print medium. With respect to claims 2-4 and 18-20, the recited depth range of the micro-convexities and micro-concavities is met by the teaching of Schwopfinger in column 2, line 62 through column 3, line 25. Regarding claims 10 and 11, the '893 patent teaches to use kerosene, light oil, etc. as the liquid applied on the outer surface of the second press drum. Even though the '893 patent does not discuss the viscosity value of the liquid used, it would have been obvious to those having ordinary skill in the art that the liquids used in '893 patent have a viscosity value lower than the viscosity of a typical screen printing ink which is oil based and the desired viscosity value for the liquid would be determined by those having ordinary skill in the art through routine experiment. Such a routine experiment carried out by those skilled in the art would have been obvious. With respect to claim 12, the selection of a silicone oil among a variety of known light oils by those skilled in the art based on the teaching of the '893 patent would have also been obvious.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-090893 in view of Schwopfinger as applied to claim 1 and 9 above, and further in view of Aoki(5,509,353). The '893 patent, as modified by Schwopfinger, teaches all that is claimed except for the sheet-like member being movable while held in abutting contact with the press drum surface. The patent to Aoki teaches a cylinder cleaning apparatus in a printing press the conventionality of using a sheet-like cleaning cloth 59 impregnated with liquid held in abutting

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contact with the cylinder surface 11 so as to apply liquid onto the outer surface of the cylinder. The sheet-like member 59 of Aoki is movable from the supply roll 60 to the take-up roll 61 and the entire cylinder cleaning apparatus is mounted on a cassette 31 that is movable relative to the cylinder 11 surface. See Fig. 1 in Aoki for example. It would have been obvious to one of ordinary skill in the art to provide the liquid application device of '893 patent, as modified by Schwopfinger with a sheet-like member mounted on a cassette appropriately disposed as taught by Aoki such that the sheet-like cleaning cloth may be recycled for repeated use.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ren L Yan
Primary Examiner
Art Unit 2854

Ren Yan
March 17, 2004